

REMARKS/ARGUMENTS

Claims 1-29 were submitted for examination. In this Office Action, Claims 1-2 and 11-15 are rejected under 35 USC 102(b) as being anticipated by US Patent No. 5,862,270 to Lopresti et al (hereinafter Lopresti), and Claims 3-10, and 29 are rejected under 35 USC 103(a) as being unpatentable over Lopresti in view of US Patent Publication No.: 20030009725 to Reichenbach (hereinafter "Reichenbach"), US Patent No. 5,862,270 to Lopresti et al (hereinafter "Lopresti"), or US Patent No. 5,612,524 to Sant'Anselmo et al (hereinafter "Sant'Anselmo"), Claims 16-21 and 26-27 are rejected under 35 USC 103(a) as being unpatentable over US Patent No. 5,447,042 to Wang (hereinafter "Wang") in view of Sant'Anselmo", Claim 28 is objected to but would be allowable if written in independent form including all of the limitations of the base claim and any intervening claims, and claims 22-25 are allowed.

The Examiner is appreciated for thoughtful comments and indication of allowing certain claims. In the foregoing amendments, Claims 1, 4, 16 and 26 have been amended to further distinguish from the cited references. No new matters have been introduced. As a result of the amendment, Claims 1-29 are pending. Further consideration of the rejections is respectfully requested in view of the amendments and the following remarks.

As amended, Claim 1 now recites:

converting binary data into a first bit-stream of codeword data;
calculating a set of error correction codewords from the first bit-stream based on a predefined error correction level;
combining the first bit-stream and the set of error correction codewords into a second bit-stream of codeword data;
dividing the second bit-stream into a set of equally sized data segments;
adding a set of control information codewords into each of the data segments;
adding a data segment divider between the data segments;
providing a top border and a bottom border, a left border and a right border circumscribing the data segments such that the 2D symbol is so created, wherein the top board includes at least one start code pattern and only one terminator

code pattern, the start code pattern is repeated enough times to accommodate all of the data segments.

(Emphasis added)

As shown in FIG. 4 or FIG. 5 of the current application, the top board 410 or 510 includes black and white bars, these bars are formed in accordance with a defined start code pattern and a defined end code pattern. However, when the length of a start code pattern and an end code pattern together is not enough to accommodate the data segments, only the start code pattern is repeated to extend the length so that the data segments are completely accommodated. Specifically, there are two repeated start code patterns and one end shown code pattern in each of the top board in FIG. 4 or FIG. 5.

In contrast, FIG. 2 of Lopresti shows that the board 16 is what is referred to as deskewing board (see line 12-16 of Col. 6). It can be noticed that there is absolutely nothing (blank only) in the board 16. There are not any black and white bars in the board. In fact, Lopresti never teaches or suggests that a board (or any part of it) includes "at least one start code pattern and only one terminator code pattern, the start code pattern is repeated enough times to accommodate all of the data segments". Simply because a deskewing board would not include anything. Applicants respectfully submit that independent Claim 1 shall be allowable over Lopresti or other cited references. Claim 4 further recites that the start code pattern and end code pattern are directional. The Examiner is respectfully requested to reconsider Claims 1-15.

Claim 16 is also amended to further distinguish from Wang. In particular, Claim 16 recites: "... searching in the stored image for the top border having at least a start code pattern and the bottom border having an end code pattern, wherein the start code pattern is repeated enough times, if necessary, to accommodate all of the data segments...". FIG. 4 of Wang shows clearly that a symbol has two boards, one on the left and the other on the right, the left one including a start pattern and the right one including a stop pattern. The start pattern and the stop pattern, as taught by Wang, are used to guide the reading of the bars in the data code area. Evidently, *it is practically*

unnecessary and meaningless, in fact it cannot, to repeat the start pattern enough times to accommodate all of the data segments. It is commonly known that the symbol in Wang can only have one start pattern and one stop pattern. Accordingly, Applicants respectfully submit that independent Claim 16, as amended, shall be allowable over Wang or Sant'Anselmo, viewed alone or in combination. The Examiner is respectfully requested to reconsider Claims 16-21.

Independent claim 26 is also amended to include the features that have recited in claim 1 and 16. Applicants wish to use the above arguments to support Claims 26-29. Accordingly, Applicants respectfully submit that independent Claim 26, as amended, shall be allowable over Wang or Sant'Anselmo, viewed alone or in combination. The Examiner is respectfully requested to reconsider Claims 26-29.

In view of the above amendments and remarks, the Applicants believe that Claims 1-29 shall be in condition for allowance over the cited references. Early and favorable action is being respectfully solicited.

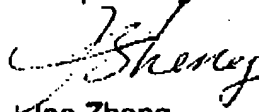
If there are any issues remaining which the Examiner believes could be resolved through either a Supplementary Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at (408)777-8873.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to "Commissioner of Patents and Trademarks, Alexandria, VA 22313-1450", on Sep 25, 2005.
Faxed: (571)273-8300

Name: Joe Zheng

Signature: _____

Respectfully submitted;


Joe Zheng
Reg.: No. 39,450